



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.



228763

FEB 03 2005

REPLY TO THE ATTENTION OF

**MEMORANDUM**

SUBJECT: **ENFORCEMENT ACTION MEMORANDUM** - Determination of Threat /  
Need to Conduct A CERCLA Time-Critical Removal Action at the American  
Lead Site, Indianapolis, Marion County, Indiana (ID # B56J)

FROM: Kenneth Rhame, On-Scene Coordinator  
Emergency Response Branch - Section 3

TO: Richard C. Karl, Director  
Superfund Division

THRU: Beverly Kush, Acting Chief  
Emergency Response Branch

**I. PURPOSE**

This memorandum is to document the determination of the threat / need to conduct a time critical removal action to abate an immediate and substantial threat to public health, welfare, and the environment discovered during investigations that were conducted by the Marion County Health Department (MCHD) in July and August of 1995, the Indiana Department of Environmental Management (IDEM) in October 1995, as well as an investigation performed for National Lead Industries Inc. (NL), by Environmental Strategies Corporation (ESE).

The American Lead Site is the off-site area around a former lead smelter, as depicted in Attachment 2. Historically, fugitive emissions from smelter facilities have resulted in lead contamination of soils off-site. The area surrounding American Lead is a mixture of residential and industrial uses and includes single family dwellings, vacant lots, community centers, playgrounds, parks, schools, commercial/industrial areas. The neighborhood may include sensitive populations such as children up to 7 years old or pregnant women. The removal is needed to eliminate the threat of lead contamination equal to or exceeding 400 parts per million (ppm) in residential yards in the areas that have been impacted by the former lead smelter. The

scope of the removal is limited to properties located outside the former lead smelter's property boundary.

There has been little congressional, public or media interest regarding the American Lead Site; however, there is significant , state, and local government interest in the American Lead Site and this removal action. To address concerns, U.S. EPA will setup a local command post to facilitate any future public interest, disseminate project information, and to coordinate with the state and local governments. U.S. EPA will coordinate with IDEM, MCHD, and the Agency for Toxic Substance and Disease Registry (ATSDR).

There are no nationally significant or precedent-setting issues associated with the Site and the Site is not currently on the National Priorities List (NPL); however, the site is currently being scored for potential future listing.

## **II. SITE CONDITIONS AND BACKGROUND**

CERCLIS ID # IND980606404

### **A. Physical Location and Description**

The former American Lead facility is located 2102 Hillside Avenue, formerly 1600 East 21<sup>st</sup> Street, Indianapolis, Indiana. The facility is located in a mixed residential and commercial/industrial area. Directly to the south of the facility is residential neighborhoods; to the east is a mixture of residential and industrial / commercial properties; to the north of the facility is a railroad running east and west which has a mixture of residential and industrial / commercial properties located on the other side of the railroad (further to the north); the west side of the property is made up of a residential neighborhood. Latitude is 39°, 47 minutes, 45 seconds North / Longitude is 86°, 7 minutes, 48 seconds West.

In Indiana, the low-income percentage is 29 % and the minority percentage is 10 %. To meet the EJ concern criteria, the area within 1 mile of the Site must have a population that's twice the state low-income percentage and/or twice the state minority percentage. That is, the area must be at least 58 % low-income and/or 20 % minority. At this Site, the low-income percentage is 63 % and the minority percent is 100 % as determined by Arcview or Landview III EJ analysis (Attachment 3). Therefore, this Site meets the region's EJ criteria based on demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998."

### **B. Site Background**

American Lead operated a lead reclamation smelter at 2102 Hillside Avenue (formerly listed as 1600 East 21<sup>st</sup> Street) from 1946 to 1965. In 1965, NL acquired American Lead and became

owner and operator of the facility. During their ownership, lead slag (lead oxide), was stored in open-air piles on the property. A 1965 newspaper report indicates that the facility had three “chimneys”, one about 100 feet high and two others about 50 feet high, that collapsed during a 1965 fire which led to the closure of the facility. In 1971, National Lead had several buildings and the slag piles removed from the property. The property remained vacant until 1985, when Central Concrete Company (CCC) purchased the property. In 1990, CCC sold the property to Irving Materials Inc.

During the period of lead smelting operations, lead fumes and dust may have been released from the facility as a point and fugitive sources. These operations may have contributed to lead contamination at the facility and the surrounding areas. Concentrations of lead contamination off site in the surrounding area has been documented as being as high as 3,620 ppm. These elevated levels of lead in soils prompted the Marion County Health Department and the Indiana State Department of Health to conduct blood lead screening of area residents. According to a report from the Marion County Health Department titled “Summary of 2102 Hillside Avenue: American Lead (on CERCLIS as 1600 E. 21<sup>st</sup> Street - same location)” lead levels in blood from 44 different children ages 7 to 12 in the census tract in which the smelter was located were tested (Attachment 5). Ten of the 44 children had blood lead levels greater than 10 micrograms per deciliter ( $\mu\text{g}/\text{dl}$ ). Of these ten children, three recently moved to this area and already had elevated blood levels.

In June 1981, National Lead Industries (NL) completed CERCLA Notification of Hazardous Waste forms for 44 sites in Region 5. One of these forms was for the American Lead Corp., located at East 21<sup>st</sup> Street, Indianapolis, Indiana. Dates of waste handling were given as 1946 to 1979. Among the waste types listed on the notification form is inorganics, heavy metals and other (slag). In May 1986, a USEPA contractor (Ecology & Environment) performed a Site Inspection (SI) and reported the results in September of 1986 which documents lead contamination present at 3,247 ppm (Attachment 5).

In February 1996, IDEM issued NL a special notice directing them to conduct an investigation to determine the nature and full extent of contamination at the site and in the surrounding residential and industrial/commercial properties. Following the issuance of special notice, IDEM and NL entered into an agreement for NL to conduct an investigation of the extent of contamination off site. Pursuant to the agreement, NL took samples and submitted several reports to the IDEM for its review. Following the study, the parties entered into negotiations for NL to conduct removal work. Negotiations continued between IDEM and NL until March 2003, when the IDEM requested assistance from USEPA Region 5 Emergency Response Branch for a removal assessment/removal action due to the concentrations of lead contamination, and failed negotiations with the PRP (NL).

On December 20, 2004, the U.S. EPA Emergency Response Team (ERT) completed a report titled “Dispersion Modeling for National Lead Facility, Indianapolis, IN” (Attachment 6). The report estimates the locations of potential lead impacts from the facility’s long term operations to

the surrounding area.

### **III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The conditions present at the American Lead site constitute an imminent and substantial threat to the public health or welfare or the environment, and meet the criteria for a removal action provided for in the National Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). The criteria includes, but is not limited to, the following:

#### **a) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;**

This factor is present due to the high levels of lead in residential yards surrounding the former American Lead smelting facility. Sampling results documented a number of residential yards with soil concentrations above 400 ppm and as high as 3,620 ppm. The residential yards have high accessibility to sensitive populations including young children and pregnant women. Sensitive populations such as children under the age of 7 years and pregnant women live in many of these residences. Adults and children may be exposed to high levels of lead from normal foot traffic, yard work, and play.

The effects of lead exposure are more severe for young children and the developing fetus through exposure to a pregnant woman. The harmful effects of lead included premature births, lower birth weight, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. In adults, lead increases blood pressure, induces anemia as a result of the inhibition of hemoglobin synthesis, decreases reaction time, affects memory, and damages the male reproductive system. Lead is also considered by U.S. EPA to be a class B2 or probable human carcinogen.

Reference: ATSDR. 1993. Toxicological Profile for Lead. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Atlanta, GA. U.S. Department of Health and Human Services, Public Health Service.

Levels of lead in surface soils for residential yards above 400 ppm and levels of lead in surface soils for nonresidential yards above 1300 ppm exceed Indiana's Risk Integrated System of Closure (RISC) Technical Guide

#### **b. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;**

This factor is present in the area surrounding the former American Lead smelting facility due to

the existence of high levels of lead in surface soils (0-3 inches). During dry conditions, winds could cause dust particles to further migrate. The high concentrations of lead in residential areas above health standards, direct contact and inhalation threats to public health, welfare or the environment should continued exposure persist, meet the criteria for a removal action.

**c) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;**

This factor is demonstrated in the area surrounding the former American Lead smelting facility which show lead is present in residential yards at or above 400 ppm to a depth of at least 0 - 3 inches. Sensitive populations including children under 7 years old and pregnant women may become exposed through normal foot traffic, yard work, or play. Additionally the presence of the contaminants near the surface allows for the migration of the contaminant from residential yards via wind, rain or manual dispersion.

**d) The availability of other appropriate federal or state response mechanisms to respond to the release**

Due to failed negotiations between the PRP (NL) and the IDEM, the site was referred to USEPA. The State of Indiana does not have the resources to address this site.

#### **IV. ENDANGERMENT DETERMINATION**

Given the Site conditions, the nature of the confirmed hazardous substances on Site, and the potential exposure pathways described in Sections II and III above, actual exposure to hazardous substances in the residential yards, if not addressed by implementing the response actions selected in this Action Memorandum, present an imminent and substantial endangerment to public health, or welfare, or the environment.

Excavation and off-site disposal of lead contaminated soil will mitigate the public health threat posed by direct human contact. Lead is a hazardous substance as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). U.S. EPA has determined that lead is a probable human carcinogen.

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

The following actions will need to be taken by either the PRP or USEPA in order to mitigate threats:

- 1) Develop and implement a Site health and safety plan, including an air monitoring plan and Site emergency contingency plan:

- 2) Develop and implement a Site security plan;
- 3) Conduct access agreement activities in order to obtain all necessary site access agreements;
- 4) Collect and analyze additional surface/subsurface soil samples for assessment, disposal, and confirmation purposes.
- 5) Characterize, remove, and properly dispose of contaminated soils with lead at or above 400 ppm in residential yards and adjoining alleyways based on XRF and/or laboratory results to a depth of two feet in accordance with U.S. EPA's Off-Site Rule (40 CFR § 300.440) in the area depicted in Attachment 2;
- 6) Develop and implement an extent of contamination and post excavation sampling plan to verify cleanup standards have been achieved;
- 7) Backfill excavated areas with clean material and topsoil. Restore areas to preexisting conditions; and
- 8) Continue public outreach.

The removal action will be conducted in a manner not inconsistent with the NCP. The OSC has initiated planning for provision of post-removal Site control consistent with the provisions of Section 300.415(l) of the NCP. Elimination of all surface threats is, however, expected to minimize the need for post-removal Site control.

The response action described in this memorandum directly address an actual or threatened release of a hazardous substance, pollutant or contaminant at the American Lead Site which may pose an imminent and substantial endangerment to public health and safety and the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

The removal action proposed is a dry excavation project. Because lead concentrations will be dramatically reduced by means of excavation, the removal will prove to be very effective in the short term.

#### Applicable or Relevant and Appropriate Requirements

All applicable, relevant, and appropriate requirements (ARARs) will be complied with to the extent practicable. A letter was sent to IDEM, Harry Atkinson, on August 8, 2003, asking that State ARARS be identified (Attachment 7).

## Cleanup Standards

As noted above, the cleanup standard for lead (400 ppm for residential yards) is based on the Superfund Lead-Contaminated Residential Sites Handbook. In addition, a cleanup standard of 400 ppm lead was selected for residential yards in this area due to the presence of sensitive populations (children below 7 and pregnant women). Under U.S. EPA Guidance (OSWER Directive #9355.4-12, # 9200.4-27P), residential areas with soil lead below 400 ppm generally require no further action.

Full vertical removal of soil contaminated above 400 ppm lead in residential yards has many advantages including avoiding costs of maintaining any soil cover, placement of barrier/s markers, and obtaining environmental easement/restrictive covenants. If lead remained in place above 400 ppm in residential yards, U.S. EPA would potentially need to expend money, time and effort obtaining land use restrictions in the form of environmental easement/restrictive covenants from the property owners and installing barriers to prevent exposure to lead above levels required for protection to human health and the environment. Removal of contaminated soil also satisfies EPA's preference for permanent remedies and allows the remediated yard to return to unrestricted use.

## **VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Continued risk to public health and the environment from exposure to lead will result if no action or delayed action ensues.

## **VII. OUTSTANDING POLICY ISSUES**

None.

## **VIII. ENFORCEMENT**

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

## **IX. COSTS**

EPA will accrue some costs during this removal action, such as; EPA personnel, EPA Superfund Technical Assistance Response Team (START) support, analytical costs. The expenses accrued by EPA for this Time Critical Removal Action will be eligible for cost recovery.

**X. STATUTORY EXEMPTION**

Not Applicable

**XI. RECOMMENDATION**

This decision document represents the selected removal action for the area surrounding the former American Lead smelting facility as depicted in Attachment 2. This document has been developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon information now presented in the Administrative Record for the Site. Conditions at the Site meet the NCP criteria in 40 C.F.R. 300.415(b)(2) for a removal action and I recommend your approval of the proposed removal action. You may indicate your decision by signing below:

APPROVE: Richard C. Kael DATE: 2-3-05  
Director, Superfund Division

DISAPPROVE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Director, Superfund Division

Enforcement Addendum

Attachments:

1. Administrative Record Index
2. Map of Site
3. Region 5 EJ Analysis
4. Summary of 2102 Hillside Avenue: American Lead (on CERCLIS as 1600 E. 21<sup>st</sup> Street - same location)
5. Site Inspection Report For American Lead Corp. by Ecology and Environment (Text Only)
6. ERT - Air Modeling and Dispersion Report
7. EPA ARARs Letter to IDEM

cc: D. Chung, U.S. EPA, 5104-A  
M. Chezick, U.S. DOI, w/o Enf. Addendum, w/o Enf. Addendum



ENFORCEMENT ADDENDUM TO ACTION MEMORANDUM

AMERICAN LEAD SITE  
INDIANAPOLIS, MARION COUNTY, INDIANA  
JULY 2003

ENFORCEMENT CONFIDENTIAL  
NOT SUBJECT TO DISCOVERY  
FOIA EXEMPT

(REDACTED 1 PAGE)

## ATTACHMENT 1

### U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

### ADMINISTRATIVE RECORD FOR AMERICAN LEAD SITE INDIANAPOLIS, MARION COUNTY, INDIANA

ORIGINAL  
JANUARY 13, 2005

| <u>NO.</u> | <u>DATE</u>          | <u>AUTHOR</u>                           | <u>RECIPIENT</u>     | <u>TITLE/DESCRIPTION</u>  | <u>PAGES</u> |
|------------|----------------------|---|----------------------|---|--------------|
| 1          | 00/00/00             | Rhame, K.,<br>U.S. EPA                  | Karl, R.<br>U.S. EPA | Action Memorandum:<br>Determination of Threat/<br>Need to Conduct a CERCLA<br>Time-Critical Removal<br>Action at the American Lead Site |              |
| 2          | 6/8/00               | Environmental<br>Strategies Corp.       | NL Industries, Inc.  | Remedial Investigation Report   |              |
| 3          | 8/2/00               | Environmental<br>Strategies Corp.       | NL Industries, Inc.  | Map of Soil Sampling Locations  |              |
| 4          | 10/11/00             | Marion County Dept.<br>of Public Health | IDEM                 | Results of Blood Lead Screening   |              |
| 5          | 07/00/95<br>08/00/95 | Various                                 | File                 | Summary of sampling results   |              |

**Attachment 2**  
**Map of Site**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**



Former American  
Lead Site

Legend



Offsite Residential Areas Under  
Consideration for Remediation

## EXHIBIT 1

(UPDATED 6/04)

OFFSITE RESIDENTIAL AREAS UNDER CONSIDERATION FOR REMEDIATION  
FORMER AMERICAN LEAD SITE INDIANAPOLIS, INDIANA



SCALE IN FEET

**Attachment 3**  
**Region 5 EJ Analysis**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**

# Indianapolis, IN

Source of Map Census 2000 Database/  
ArcView 3.0

**Attachment 4**  
**Summary of 2102 Hillside Ave.**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**

**Summary of Hillside Avenue: American Lead  
(on CERCLIS as 1600 E. 21st Street - same location)**

**Property description:** 2102 Hillside Avenue: Contains 7.5 acres, is approximately 1000 feet long and 330 feet wide. It is bounded on the east by Hillside Avenue; 21st Street on the south, the Conrail tracks on the north; and another property which fronts on Sheldon Street on the west.

**Time Line**

***Prior to 1899:*** Unknown

***1899:*** Fleming & Edwards (type of business not known)

***1908, 1915:*** Atlas Engine Company

***7 :*** Alloys Refining Corp.

***1941 - 1965:*** American Lead listed as owner, but National Lead may have owned American Lead at this time. History: This facility was believed to be a lead smelting operation, and open slag piles were believed to be on the site for approximately 25 years.

***1965 - 1979:*** National Lead took over ownership. NL was involved in the reclamation of lead from car batteries and other sources for a number of years. Slag (lead oxide) had been stored directly on the ground in piles. Car batteries are assumed to have been dumped into bins outside the facility for storage. Building burnt down in 1970, at this time there could have been a release of a large amount of contamination to the environment. In 1971, NL's real estate agency had some of the other buildings along with the slag piles removed from the property.

***1979 - 1985:*** NL sold the property to a mortgage title company.

***1985 - 1987:*** Property sold to Lewis Waller of Central Concrete. This was a construction company that stored sand and gravel and other construction debris at the site. During this time a great deal of construction began on the eastern portion of the property. Construction in the property's northeast area uncovered boulder sized materials with high specific gravity with rust appearance. This was assumed to be slag from former smelting operations on the site.

***1987 - 1990:*** Central Concrete listed as owner

***1990 - Present:*** Irving Materials, Inc. took over ownership. Primarily used for storage of concrete products. Heavy truck traffic. The southeastern part of property is currently being leased to Dura Crete.

**Geologic Survey**

The site is located in the White River Outwash Area. The upper layer of soil is mostly gravel and sand which is often unconfined by till. The water table is as shallow as 10 feet or less with a relatively high recharge potential. Therefore, this property could be sensitive to contamination.



**Wells**

Groundwater and surface water used in the area is mixed with an unknown number of people using domestic wells within 4 miles. A good portion of the area is served by the Indianapolis Water Company (IWC) who obtain water from four different areas. All of these surface and groundwater intake points for the IWC are west, north, and northwest of the site and would be upgradient.

**Initial Site Investigation Results****Samples by E & E (1986):**

Sample #1, West of Property: Lead - 3247 ppm

Sample #2, Southeast Portion of Property: Lead - 1538 ppm

**Note:** It is believed that one or both of these samples were actually collected from the adjacent property at 21st and Sheldon Street.

**Samples by ETS (1986):**

Sample #1, Northwest Corner of Property: Lead - 180 ppm

Sample #2, NE Property, now covered by structure: Lead - Unavailable

Sample #3, Northwest corner of site: Lead - 130 ppm

Sample #4, Northwest corner of site: Lead - 24 ppm

**Lead in Blood**

Lead Levels in Blood from 44 different children ages 7 to 2 in the census tract in which the smelter was located. Ten of the 44 children had blood lead levels greater than 10 (ug/dl). Of these 10, three recently moved to this area and already had elevated blood leads. This data indicates that approximately 16% of the children in this area have elevated blood levels - if the three uncertainties are eliminated and is assumed any reading over 10 ug/dl as elevated.

**Assessments**

*David Farlow, Chief Environmental Engineer of ETS on December 1, 1986:* "...it appears that most and possibly all of the soil to a depth of approximately three to four feet on the site at 2101 Hillside Avenue, is considered hazardous waste under the provisions of 40 CFR 21.24, with lead as the primary contaminant of concern. It must be concluded that the concentrations are high enough that a potential health hazard exists and the remedial measures will ultimately have to be taken....While inspecting the site prior to sampling old solid mass of essentially pure lead was found. This sample weighed about 5 to 6 pounds.

*Ken Krueger of Ecology and Environment, Inc., Sept. 24, 1986,* "...substantial concentrations of contamination was found. Security is non-existent with holes in the cyclone fence that surrounds half the property...easy access, contaminated ground, and an abandoned unused building should result in further action, at least by the state. (Note: Believe Mr. Krueger)

referring to the neighboring property and not to the property which once housed the smelter. He mentions the burnt out building and numerous pieces of machinery lying about the building. These are located on the property west of the smelter site.)

#### Marion County Health Department (MCHD) Involvement

On May 11, 1995, Vickie Cordell of IDEM contacted Terry Lawrence, MCHD. Ms. Cordell was seeking any available file information on a former smelter at the location, any record of offsite lead contamination, and any other concerns about the site. Upon inspection, it was noted that this piece of property receives a great deal of truck traffic. This creates a fair amount of dust in the air. However, there does not appear to be much migration of this dust offsite.

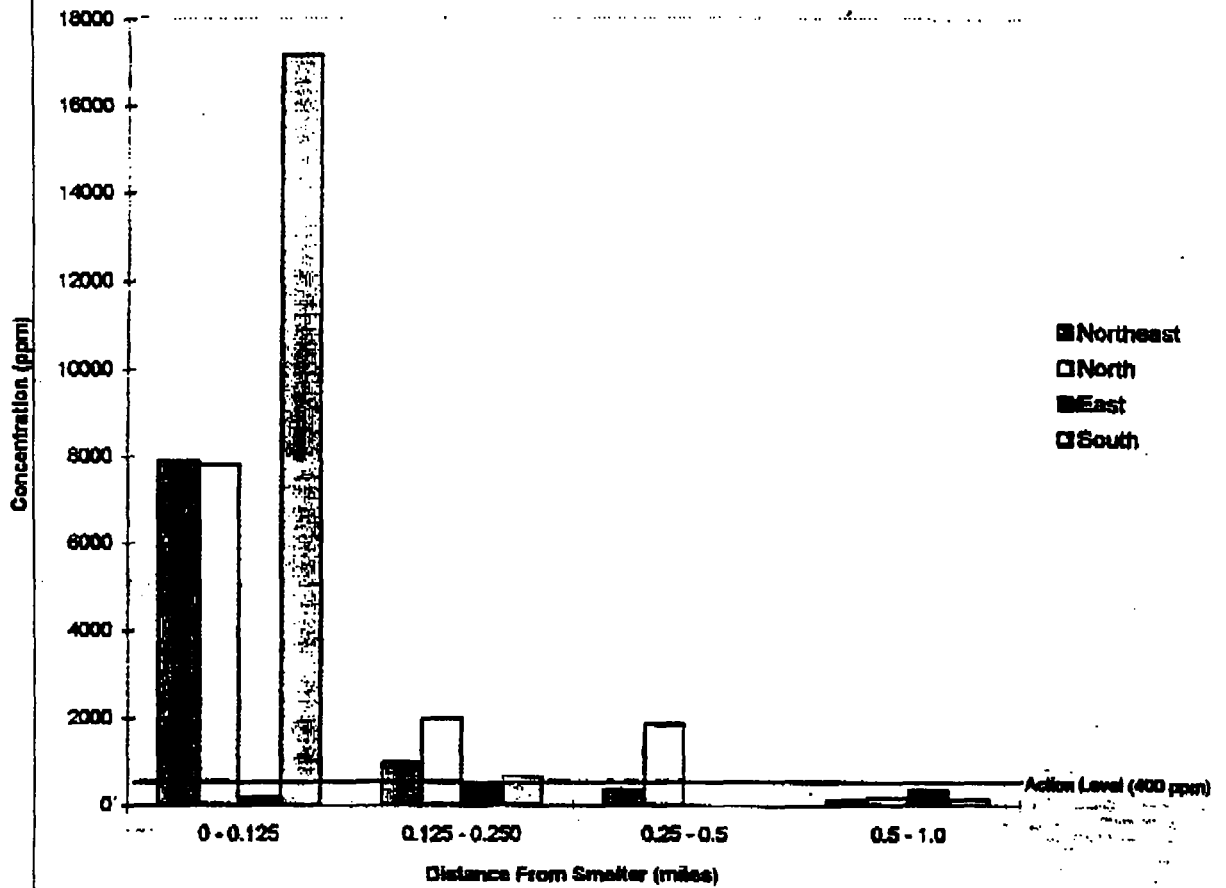
#### MCHD Sampling

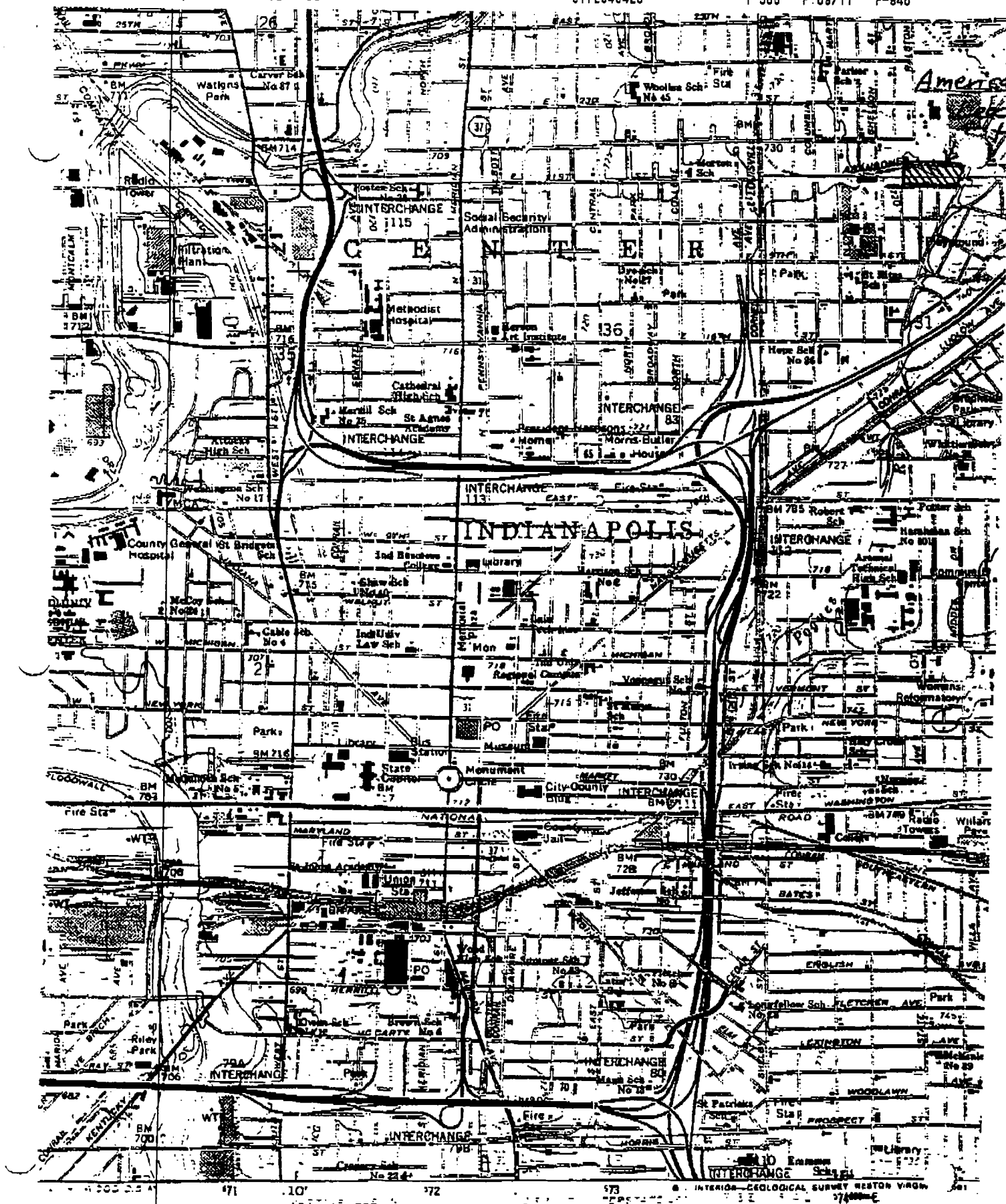
One concern was potential lead migration to the surrounding residential neighborhood while the smelter was in operation. The MCHD began taking soil samples from the surrounding neighborhood in July of 1995. The sampling consisted on an initial, survey sampling on July 24, 1995, followed by a more in-depth sampling in August 24, 1995. Overall, 19 soil samples with distances ranging from just outside the property fence to almost a mile away.

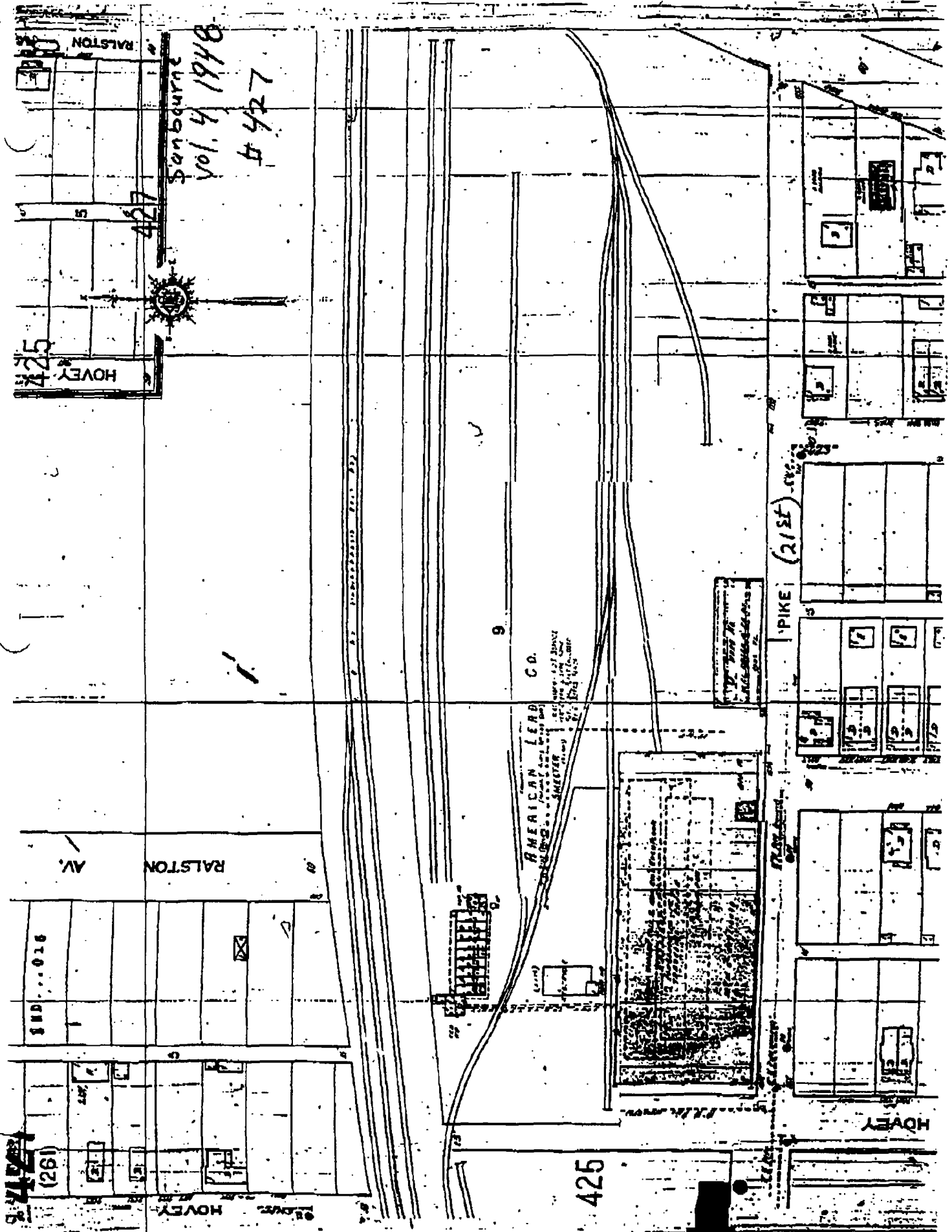
Each sample taken in the second sampling round was a composite sample of three separate samples taken from an area approximately 5 feet in diameter. These individual samples were combined and the final sample taken from this mixture. All sampling areas had to be at least 15 feet from a roadway, and the soil could not have any evidence of contamination. At all times, MCHD tried to sample from soil which was believed to be exposed at the time the smelter was in operation.

| Date Taken | Address              | Location Description              | SAMPLE INFORMATION |                     |                       |
|------------|----------------------|-----------------------------------|--------------------|---------------------|-----------------------|
|            |                      |                                   | Sample Number      | Concentration (ppm) | Distance from Smelter |
| 7/24/95    | 2120 Hillside Ave    | Near RR Tracks, Edge of Woods     | 1                  | 4591                | 0.000                 |
| 7/24/95    | 2120 Greenbriar Lane | Empty Lot                         | 2                  | 415                 | 0.125                 |
| 7/24/95    | 2200 Bellis St.      | Empty Lot                         | 3                  | 247                 | 0.125                 |
| 7/24/95    | 1980 Gertrude St.    | Playground                        | 4                  | 548                 | 0.250                 |
| 8/24/95    | 2102 Hillside Ave    | Wooded Yard of Industrial Laundry | 5                  | 176                 | 0.000                 |
| 8/24/95    | 2100 Caroline St     | Empty Lot                         | 6                  | 488                 | 0.125                 |
| 8/24/95    | 2100 Rural St.       | Empty Lot                         | 7                  | 363                 | 0.500                 |
| 8/24/95    | 2100 Ralston Ave     | Empty Lot                         | 8                  | 17200*              | 0.000                 |
| 8/24/95    | 1500 Roosevelt       | Empty Lot                         | 9                  | 150                 | 0.500                 |
| 8/24/95    | 2102 Hillside        | Near RR Tracks, In Woods          | 10                 | 7901                | 0.000                 |
| 8/24/95    | 2200 Hillside        | Empty Lot                         | 11                 | 953                 | 0.125                 |
| 8/24/95    | 2400 Hillside        | Empty Lot                         | 12                 | 362                 | 0.250                 |
| 8/24/95    | 2500 Eastern St      | School Yard                       | 13                 | 128                 | 0.500                 |
| 8/24/95    | 2250 Ralston Ave     | Baseball Field                    | 14                 | 1979                | 0.125                 |
| 8/24/95    | 2400 Ralston Ave     | Empty Field                       | 15                 | 1850                | 0.250                 |
| 8/24/95    | 2600 Sangster Ave    | Park                              | 16                 | 184                 | 0.500                 |
| 8/24/95    | 2200 Tipton St       | Near RR Tracks, In wooded area    | 17                 | 7810                | 0.000                 |
| 8/24/95    | 2100 Keystone Ave    | Empty Lot                         | 18                 | NA                  | 0.250                 |
| 8/24/95    | 2000 Ralston Ave     | Front Yard of House               | 19                 | 648                 | 0.125                 |

# AMERICAN LEAD SOIL SAMPLING







PREscore 3.0 - PRESCORE.TCL File 07/25/94  
HRS DOCUMENTATION RECORD  
American Lead Corp. - 06/12/95

PAGE: 1

1. Site Name: American Lead Corp.  
(as entered in CERCLIS)
2. Site CERCLIS Number: IND980606404
3. Site Reviewer: Vickie Cordell
4. Date: 6/5/95
5. Site Location: Indianapolis/Marion, Indiana  
(City/County,State)
6. Congressional District: 10
7. Site Coordinates: Single

Latitude: 39°47'49.8"

Longitude: 86°07'44.5"

|   | Score  |
|---|--------|
| Ground Water Migration Pathway Score (Sgw)  | 12.51  |
| Surface Water Migration Pathway Score (Ssw) | 0.28   |
| Soil Exposure Pathway Score (Ss)            | 100.00 |
| Air Migration Pathway Score (Sa)            | 41.28  |

|            |       |
|------------|-------|
| Site Score | 54.45 |
|------------|-------|

## NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

|                  |                    |      |              |
|------------------|--------------------|------|--------------|
| Post-it Fax Note | 7671               | Date | # of pages 3 |
| To               | KEN ZHAME          |      |              |
| Co./Dept.        | From               |      |              |
| Phone #          | Co.                |      |              |
| Fax #            | Phone #            |      |              |
|                  | Fax # 312.355.9176 |      |              |

\*\*\*\*\*FAX COVER PAGE\*\*\*\*\*

BUREAU OF ENVIRONMENTAL HEALTH  
3838 N. RURAL ST., 5<sup>TH</sup> FLOOR  
INDIANAPOLIS, IN 46205

MARION COUNTY  
HEALTH DEPARTMENT

*making a difference*

DATE: 11-15-00  
TO: Lynette Schrowe  
FAX #: 234-0428  
RE:  
FROM: Pam Thewissen  
PHONE:

ORIGINATING FAX: (317) 221-2288

PAGES: (INCLUDING COVER) 2

COMMENTS:

11/15/00 09:18 FAX 3172212288

1002

AUG-19-2003 02:20PM FAX:3172340428

ID:USEPA REGION 5

PAGE:001 R=96%



## American Pb

| DOB        | DATE TESTED | RESULTS |
|------------|-------------|---------|
| 08/03/1988 | 10/11/2000  | 1       |
| 03/02/1958 | 10/11/2000  | 2       |
| 03/30/1980 | 10/11/2000  | 1       |
| 03/10/1948 | 10/11/2000  | 3       |
| 11/19/1951 | 10/11/2000  | 2       |
| 03/25/1944 | 10/11/2000  | 1       |
| 04/15/1960 | 10/11/2000  | 1       |
| 11/10/1988 | 10/11/2000  | 1       |
| 12/05/1977 | 10/11/2000  | 1       |
| 03/12/1973 | 10/11/2000  | 1       |
| 08/22/1941 | 10/11/2000  | 2       |
| 04/14/1924 | 10/11/2000  | 1       |
| 09/12/1938 | 10/11/2000  | 4       |
| 04/07/1990 | 10/11/2000  | 1       |
| 01/02/1942 | 10/11/2000  | 7       |
| 05/06/1972 | 10/11/2000  | 1       |
| 08/29/1953 | 10/11/2000  | 3       |
| 05/17/1927 | 10/11/2000  | 1       |
| 10/16/1951 | 10/11/2000  | 1       |
| 01/02/1983 | 10/11/2000  | 1       |
| 11/21/1998 | 10/11/2000  | 1       |
| 02/04/1981 | 10/11/2000  | 1       |
| 03/11/1981 | 10/11/2000  | 1       |
| 01/10/1976 | 10/11/2000  | 1       |
| 09/20/1947 | 10/11/2000  | 1       |
| 08/23/1988 | 10/11/2000  | 3       |
| 01/19/1987 | 10/11/2000  | 1       |
| 06/14/1952 | 10/11/2000  | 1       |
| 07/23/1995 | 10/11/2000  | 3       |

*no bill  
no yps old*

*~ 12 yps old*

*~ 10 yps old*

*~ 2 yps old*

*~ 2 yps old*

*~ 3 yps old*

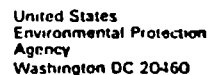
*~ 5 yps old*

*TOTAL*

*7 < 12 yps of age*

2002

11/15/00 WED 16:08 FAX 3172212288



Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

IN #231 810609 INS-000-001-009

Enter the name and address of the person or organization required to notify.

Name NL Industries, Inc.  
Street P. O. Box 1090 (Wyckoff Mills Rd.)  
City Hightstown State NJ Zip Code 08520

Enter the common name (if known) and actual location of the site.

Name of Site American Lead Corp.  
Street 1600 E. 21st St.  
City Indianapolis County Marion State IN Zip Code 46218

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) Baser, F. R., Dir. Environmental Control  
Rodman, H. G., Environmental Engineer

Phone 609/443-2411 or 2410

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year) 1946 To (Year) 1979

**Option 1:** Select general waste types and source categories, if you do not know the general waste types or sources, you are encouraged to describe the site in Item 1—Description of Site.

**Source of Waste:**  
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab Hospital
17. ☐ Unknown
18. ☒ Other (Specify)

Step

**Option 2:** This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

**Specific Type of Waste:**  
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

[illegible]

000390 JUN -98

1.714 Approved  
1.714 No. 20190138

Secondary <sup>See</sup> leaf plant

**JUN 12 1981**

| Notification of Hazardous Waste Site  | Side Two   |   |
|---|--|---|
| <b>F Waste Quantity</b><br>Place an X in the appropriate boxes to indicate the facility types found at the site.<br>In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.<br>In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres. | <b>Facility Type</b><br>1 <input type="checkbox"/> Piles<br>2 <input type="checkbox"/> Land Treatment<br>3 <input type="checkbox"/> Landfill<br>4 <input type="checkbox"/> Tanks<br>5 <input type="checkbox"/> Impoundment<br>6 <input type="checkbox"/> Underground Injection<br>7 <input type="checkbox"/> Drums, Above Ground<br>8 <input type="checkbox"/> Drums, Below Ground<br>9 <input type="checkbox"/> Other (Specify) _____ | <b>Total Facility Waste Amount</b><br>cubic feet <u>unknown</u><br>gallons _____<br><b>Total Facility Area</b><br>square feet <u>unknown</u><br>acres _____ |

**G Known, Suspected or Likely Releases to the Environment:**  
Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment. ☐ Known ☐ Suspected ☐ Likely ☒ None

**Note:** Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

**H Sketch Map of Site Location: (Optional)**  
Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

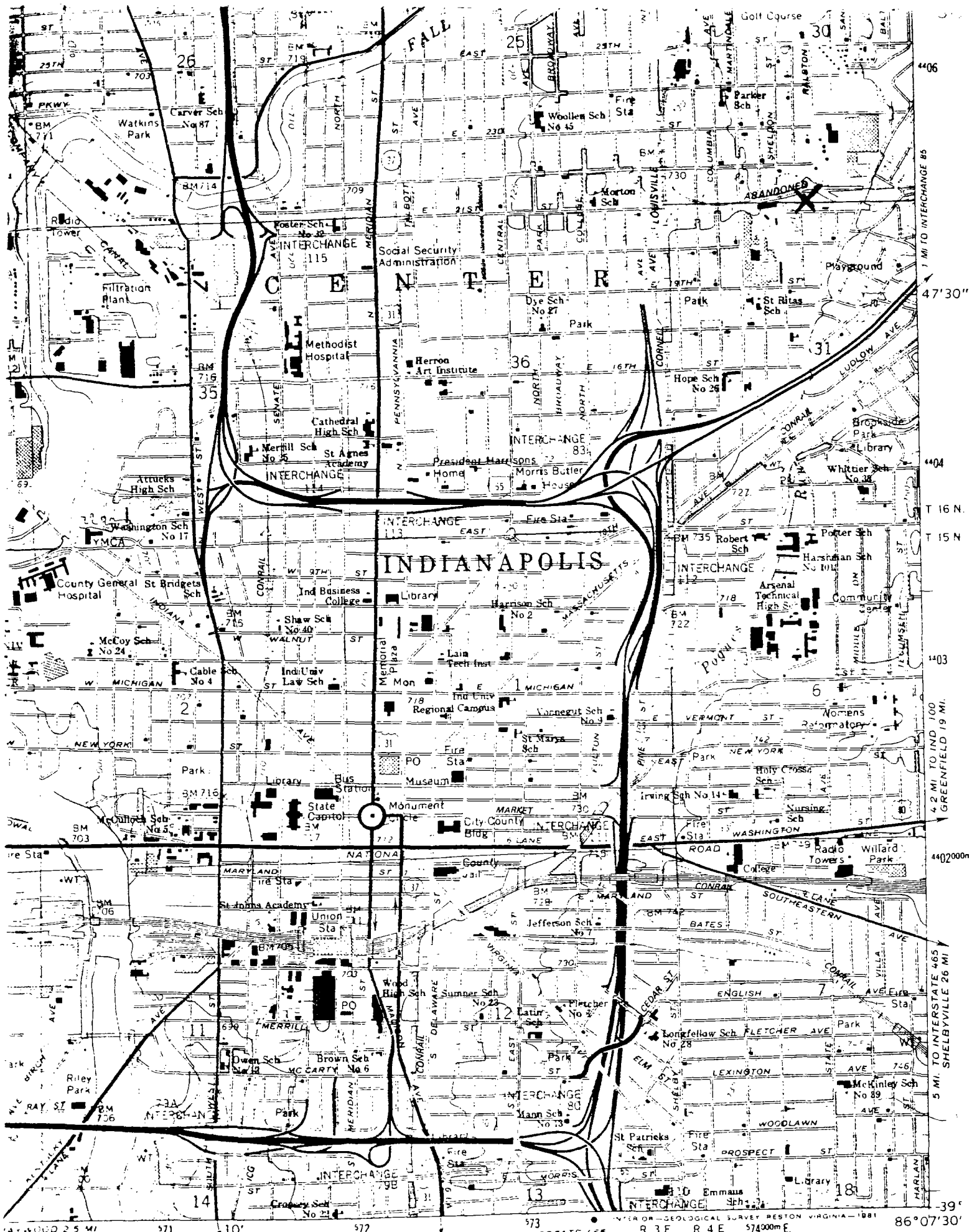
**I Description of Site: (Optional)**  
Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

Notification based on storage of  
slag prior to disposal off-site.

**J Signature and Title:**  
The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other."

Name F. R. Baser  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Signature F. R. Baser Date 6/8/81

☐ Owner, Present  
☒ Owner, Past  
☐ Transporter  
☐ Operator, Present  
☒ Operator, Past  
☐ Other



ROAD CLASSIFICATION

Primary highway, all weather, hard surface      Light duty road, all weather, improved surface

F. R. Baser  
Director,  
Environmental Control Department

NL

June 9, 1981

Regional Administrator  
US EPA Region 5  
Sites Notification  
Chicago, IL 60604

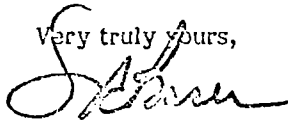
Dear Sir:

NL Industries, Inc. has completed and encloses 44 "EPA Notification of Hazardous Wastes Site" forms, each of which identifies a site within your region where hazardous waste may have been stored or disposed of. Certain facilities were or are owned by subsidiaries, whether wholly or majority owned; some of these subsidiaries have been liquidated, and some have not. For convenience of reference, all notifications are being made in the name of the parent, NL Industries, Inc. In some cases our information is incomplete as to dates that old facilities started and/or ceased operations. In most of these cases the facility no longer exists.

NL was formed in 1891 by the merger of a number of independent lead or related product manufacturers, some of which may have been in business for over a century previous to 1891. We have not attempted to complete forms for facilities not operated since 1891, because of doubt regarding the obligation to do so, and our general lack of any specific information regarding such sites. Similarly, we are generally unable to trace the corporate history of companies which were acquired and therefore have not included facilities which were disposed of by such companies prior to the date of acquisition by NL.

A number of our filings are precautionary and are based on uncertainty induced by the absence of regulatory guidance in interpreting non-specific statutory language. Accordingly, our "estimates", "suspicions", and "presumptions" whether or not labeled should not be construed as admissions that the activities described took place, or had the described consequences, or that NL is in any way responsible for such activities or consequences. In most such cases, we expressly disclaim responsibility.

Very truly yours,



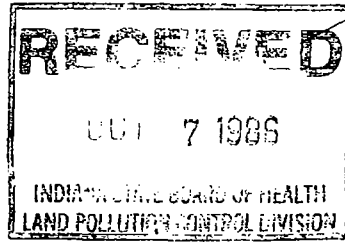
F. R. Baser

FRB/tb  
Enclosures

NL Industries, Inc.  
P.O. Box 1090, Hightstown, N.J. 08520 Tel. (609) 443-2411

JUN 12 1981

**Attachment 5**  
**E&E Site Inspection Report (text only)**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**



SITE INSPECTION REPORT  
FOR  
AMERICAN LEAD CORP.  
Indianapolis, IN  
R05-8410-2D  
IND 980606404

September 24, 1986



## ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

### M E M O R A N D U M

DATE: September 24, 1986  
TO: File  
FROM: Ken Krueger  
SUBJECT: Indiana/R05-8410-2D/IN0224  
Indianapolis/American Lead Corp.  
IND 980606404

This site was originally identified by the Indiana Department of Environmental Management in the form of a Preliminary Assessment submitted to the USEPA. This facility was once an abandoned lead smelting operation, and open slag piles were believed to be on site for approximately 25 years.

American Lead was previously owned by National Lead Corp. (NL Industries) of Hightstown, New Jersey. NL used to be involved in the reclamation of lead from car batteries and other sources for a number of years. Slag (lead oxide) had been stored directly on the ground in piles. It is unknown how the batteries were stored prior to processing, but it is assumed by Mr. H. D. Rodman of NL Industries that the batteries were dumped into bins outside the facility. The building had burnt down in 1970 and in 1971 NL's real estate agency had some of the other buildings along with the slag piles removed from the property. In 1979 NL sold the property to a mortgage title company and in the spring of 1985 it was then sold to Lewis Waller of Central Concrete. This is a construction company that stores sand and gravel and other construction debris at the site. Central Concrete is also in the process of building a maintenance building (garage) at the southeastern edge of the property.



The FIT conducted a site inspection at this facility on May 28, 1986. Very little information was acquired from the present owner on past history. Two soil samples were collected. One behind the old smelter building and the other in a depression among the construction debris. This is the area of past slag piling activities. Organic and heavy metal contamination was found in both samples. Lead (3247 ppm), arsenic (69.0 ppm), and chromium (59 ppm) are the major hits especially in the smelter sample. Fluoranthene (120,000 ppb), pyrene (110,000 ppb), and phenanthrene (83,000 ppb) are some of the major organic hits. (see Site Inspection Report - Part 2 and Sample Data Sheets).

Groundwater and surface water use in the area is mixed with an unknown number of people using domestic wells within three miles. A good portion of the area is served by the Indianapolis Water Company who obtain water from four different areas. All surface and groundwater intake points are west, north, and northeast of the site and would be upgradient. Surface and groundwater is blended at these intake stations with the closest, two to three miles away (canal at 16th Street and Fall Creek). The other (42nd and Fall Creek Road) is a little more than three miles away. Seven gravel packed wells exist at the 16th Street Station, and five at the 42nd Street plant. Water from these two plants as well as two others out of the radius are all interconnected and may borrow water from each other at any time. This is an outwash area predominately sand and gravel with moderately permeable soil conditions. The area surrounding the site is very urban with some industry.

It should also be noted that there are many homes with some commercialized industry between American Lead (now Central Concrete) and the surface water intakes and the groundwater wells located upgradient. Determining any type of release to surface water would not be possible, and groundwater targets, although extensive, would be borderline depending on the proximity of domestic wells.

In summary, substantial concentrations of contamination was found. Security is non existent with holes in the cyclone fence that surrounds half the property. There is no fence surrounding the burnt out building where the smelter plant was located. There is also numerous machinery that was discarded that lies around the building. The building is an eyesore to the neighborhood and dangerous to anyone that might enter it. Therefore, easy access, contaminated ground, and an abandoned unsafe building should result in further action, at least by the state.

*Ken Krueger*

31R:2W

**Attachment 6**  
**ERT Air Modeling and Dispersion Report**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**

DATE: December 20, 2004

TO: Alan Humphrey, USEPA/ERT Work Assignment Manager

FROM: Howard Schmidt, REAC Senior Atmospheric Modeler

THROUGH: Jeff Bradstreet, REAC Air Response Section Leader

SUBJECT: Dispersion Modeling for National Lead Facility, Indianapolis, IN

Dispersion modeling was performed to estimate the locations of potential lead impacts from the National Lead Facility in Indianapolis, IN. Three scenarios were modeled to depict lead deposition from long-term work operations. Insufficient facility information was available to model actual lead deposition amounts. Therefore, figures within this report depict most probable impact areas from long-term operations. Modeling output is presented graphically for three requested scenarios. Actual deposition figures were not calculated, however, percentages of maximum concentrations are presented to estimate the most likely location of previous impacts.

Information used in the long-term modeling scenario includes:

- Stack locations (UTM pairs) determined from georeferenced USGS 7.5' quadrangle of facility area
- With no emission rate data available, 1 gram/second (g/s) (unitized emission rate) was used as input
- Three stack heights for long-term modeling taken from December 22, 1958 *Indianapolis News* article on a fire at the facility and a June 29, 1965 *Indianapolis Times* article on large explosion and fire that destroyed the facility
- Stack gas exit temperature, stack gas exit velocity, and stack inside diameter for long-term modeling were not available for the National Lead facility – data was taken from a modeling report completed on a similar lead smelter
- Modeled lead particle size, mass fraction, and density was taken from AP-42, Chapter 12.3
- Upper air meteorological data from Peoria, IN
- Surface meteorological data from Indianapolis, IN

All modeling was done utilizing EPA's Industrial Source Complex Short Term Model (ISCST3). The model was run with all regulatory default options, dry deposition, and was set for an urban environment. A Cartesian receptor grid with 100 meter (m) spacing covering 5 km<sup>2</sup> (centered on the lead facility) was utilized for the analysis.

Stack parameters for long-term deposition are as follows:

#### STACK 1

- emission rate **1.0 g/s (unity)**
- stack height **45.72 m (also modeled at 30.28 m)**
- stack gas exit temperature **320°K**
- stack gas exit velocity **8.0 m/s**
- stack inside diameter **1.2 m**

#### STACK 2

- emission rate **1.0 g/s (unity)**
- stack height **15.24 m**
- stack gas exit temperature **340°K**
- stack gas exit velocity **17.0 m/s**
- stack inside diameter **0.5 m**

### STACK 3

- emission rate 1.0 g/s (unity)
- stack height 15.24 m
- stack gas exit temperature 450°K
- stack gas exit velocity 19.0 m/s
- stack inside diameter 0.9 m

Three scenarios were modeled:

- 1 - Three stacks with STACK 1 at 45.72 m (Figure 1a)
- 2 - Three stacks with STACK 1 at 30.28 m (Figure 1b)
- 3 - One stack with STACK 1 at 45.72 m (Figure 1c)

Maximum long-term impacts are predicted by ISCST3 to be northeast of the facility. This would be consistent with predominant west to southwest winds in the Midwestern United States.

Alan,

Three figures are burned on the CD with the scenarios we discussed on Wednesday; hard copies are also attached. All figures are adjusted to the new centerpoint (source location). Scenario 1 includes three stacks with the tallest at 150 ft. Scenario 2 includes three stacks with the tallest at 100 ft. Scenario 3 is a lone stack at 150 ft.

Please note a minor change needs to be made to the electronic copy of Scenario 3...the file name reads fig1c, but the actual figure reads Figure 1a, Scenario 1. It will be changed to reflect the correct title of Figure 1c, Scenario 3.

I will be in the office Friday from 7a-1130a if you have any questions.

Howard









**Attachment 7**  
**EPA ARARs Letter to IDEM**  
**AMERICAN LEAD SITE**  
**INDIANAPOLIS, MARION COUNTY, INDIANA**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

SE-5J

August 8, 2003

REGULAR MAIL

Indiana Department of Environmental Management  
State Cleanup Section  
Harry Atkinson  
100 N. Senate Ave  
Indianapolis, Indiana 46204

Dear Mr. Atkinson:

This letter requests that the Indiana Department of Environmental Management identify all Applicable, Relevant, and Appropriate Requirements (ARARs) for upcoming time critical removal at the American Lead Site located in Indianapolis, Marion County, Indiana. Any State ARARs identified in a timely manner for this time-critical removal action will be complied to the extent practicable. Work at this site, is scheduled to begin in the fall 2003.

If you have any questions regarding this letter, please feel free to contact me at (312) 353-6720.

Sincerely yours,

A handwritten signature in cursive script, reading "Kenneth B. Rhame", is written over the typed name.

Kenneth B. Rhame  
Federal On-Scene Coordinator  
Emergency Response Section 3

**American Lead  
Martindale-Brightwood Neighborhood**

**Blood Lead Screening**

**October 11, 2000  
3:00 PM – 7:00 PM**

**1701 E. 25<sup>th</sup> Street  
Oasis of Hope Baptist Church**

**We will offer free blood lead screening for  
all residents in the area**

The Marion County Childhood Lead Poisoning Prevention Program is offering free blood lead testing for those residents living in the Martindale-Brightwood neighborhood and within the American Lead smelter site boundaries. The Indiana Department of Environmental Management will be available to answer questions about the recent soil sampling of neighborhood properties. If you have any questions regarding whether you, or a member of your family, should be tested, please call Dave McCormick at 221-2171. Everyone is welcome to attend!

**Please call 221-2171 if you have any  
questions**